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MRUK, GEOFFREY S	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/635,636
Filing Date: August 06, 2003
Appellant(s): HAINES ET AL.

Scott A. Lund
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 10 August 2006 appealing from the Office action mailed 14 February 2006.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,481,289	Arashima et al.	1-1996
6,398,354	Lattuca et al.	6-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Arashima et al. (US 5,481,289).

With respect to claim 1, Arashima discloses a filter (Fig. 7, elements 63, 70) for a printhead assembly (Fig. 3), the filter comprising:

- a frame (Fig. 7, element 19) having a first face (Fig. 7, element 94) and a second face opposite the first face (Fig. 7, element 52), and
- an opening (Fig. 3, element 69) formed therein communicated with the first face and the second face;
- separate filter material (Fig. 7, elements 63, 70) provided on each the first face and the second face of the frame, and enclosing the opening of the frame (Column 10, lines 55-61); and
- a fluid fitting (Column 6, lines 47-49, i.e. press fit) associated with the frame, the fluid fitting including a fluid port offset from the frame and a fluid passage (Fig. 7, volume of element 52) communicated with the opening of the frame and the fluid port.

With respect to claim 2, Arashima discloses the filter material (Fig. 7, elements 63, 70) is secured (thermal bond) to the first face (Fig. 7, element 94) and the second face (Fig. 7, element 52) of the frame around a perimeter of the opening (Column 10, lines 55-61).

With respect to claim 3, Arashima discloses the filter material (Fig. 7, elements 63, 70) has a mesh size in a range of approximately 2 microns to approximately 20 microns (Column 11, lines 1-11).

With respect to claim 4, Arashima discloses the filter material (Fig. 7, elements 63, 70) is adapted to allow liquid ink to pass there through (Column 11, lines 1-11), and wherein the filter material is adapted to prevent air from passing there through when the filter material is wetted by the liquid ink (Column 1, 60-67).

With respect to claim 5, Arashima discloses the fluid passage (Fig. 7, volume of element 52) of the fluid fitting (Column 6, lines 47-49, i.e. press fit) is adapted to direct air (Column 7, lines 6-20) from the fluid port of the fluid fitting to the opening of the frame (Fig. 7, element 71).

With respect to claim 6, Arashima discloses the filter (Fig. 7, elements 63, 70) material is adapted to trap air within the opening of the frame (Column 1, 60-67).

With respect to claim 7, Arashima discloses the fluid port (Fig. 10, element 52) of the fluid fitting (Column 6, lines 47-49, i.e. press fit) has a longitudinal axis, and wherein the frame (Fig. 10, element 19) is oriented substantially parallel with the longitudinal axis of the fluid port.

With respect to claim 8, Arashima discloses the fluid passage (Fig. 7, volume of element 52) of the fluid fitting has a surface oriented at an angle to the longitudinal axis of the fluid port (Fig. 7, element 52).

With respect to claim 12, Arashima discloses the frame has a substantially rectangular shape (Fig. 10, element 19), and wherein the fluid port (Fig. 10, element 52) of the fluid fitting extends from a side of the substantially rectangular shape.

With respect to claim 13, Arashima discloses the frame (Fig. 10, element 19) includes at least one separator (Fig. 10, element 94) extending within the opening of the frame between opposite sides of the substantially rectangular shape.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arashima (US 5,481,289) in view of Lattuca et al. (US 6,398,354 B1).

With respect to claims 9 and 10, Arashima discloses the fluid passage (Fig. 7, volume of element 52) of the fluid fitting has a surface oriented at an angle to the longitudinal axis of the fluid port (Fig. 7, element 52).

However, Arashima fails to disclose

- the angle is approximately a right angle and
- the angle is an acute angle.

Lattuca discloses a printhead apparatus (Fig. 1) where the fluid passage (Fig. 9, element 110) of the fluid fitting (Fig. 9, element 86) has a surface (fig. 9, element 88) oriented at an angle to the longitudinal axis of the fluid port (Fig. 9, element 86), where

- the angle is approximately a right angle (Fig. 6, angle between elements 86 and 88; Column 4, line 30, i.e. cylindrical tower) and
- the angle is an acute angle (Fig. 9, angle between elements 86 and 88; Column 5, lines 45-60).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use the filtration device disclosed by Lattuca in the ink supply mechanism of Arashima. The motivation for doing so would have been "to assist in air removal from the filtered ink flow path 110 which may accumulate when the ink cartridge is run dry and/or upon replacement of the ink cartridge" (Column 5, lines 53-56).

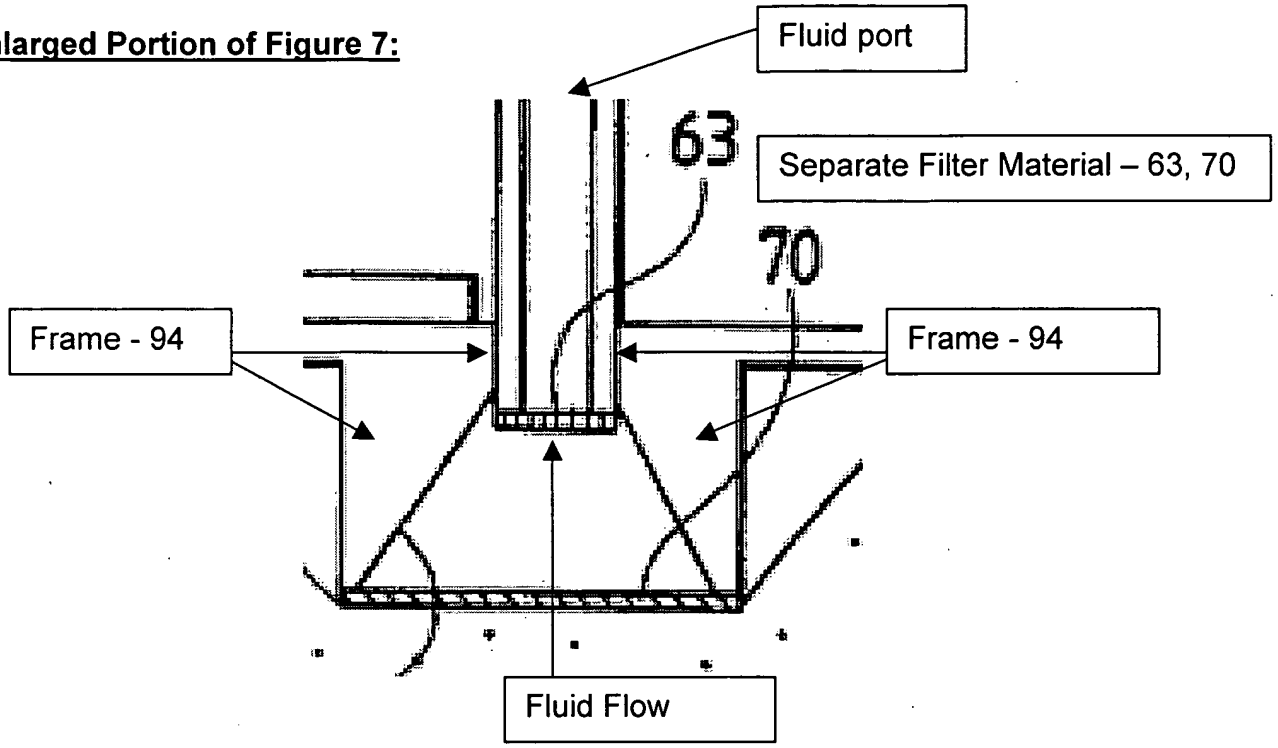
(10) Response to Argument

With respect to claims 1-8, 12, and 13, the appellant states "Independent claim 1 is directed to a filter for a printhead assembly." Appellant argues "The first and second filter members (63 and 70) of the Arashima et al. patent, however, are not provided on opposite faces of a frame of the ink supply mechanism and do not enclose an opening of the frame. Furthermore, the ink supply tube (52) of the Arashima et al. patent does not include does not include a fluid port offset from a frame of the ink supply mechanism and a fluid passage communicated with the opening of the frame (as enclosed by separate filter material provided on opposite faces of the frame) and the fluid port. Appellant, therefore submits that the first filter member (70) and the second filter

member (63) of the Arashima et al. patent do not constitute separate filter material provided on opposite first and second faces of a frame and enclosing an opening of the frame, as claimed in independent claim 1, and submits that the ink supply tube (52) of the Arashima et al. patent does not constitute a fluid fitting including a fluid port offset from a frame of the ink supply mechanism and a fluid passage communicated with the opening of the frame and the fluid port a claimed in independent claim 1", is not persuasive.

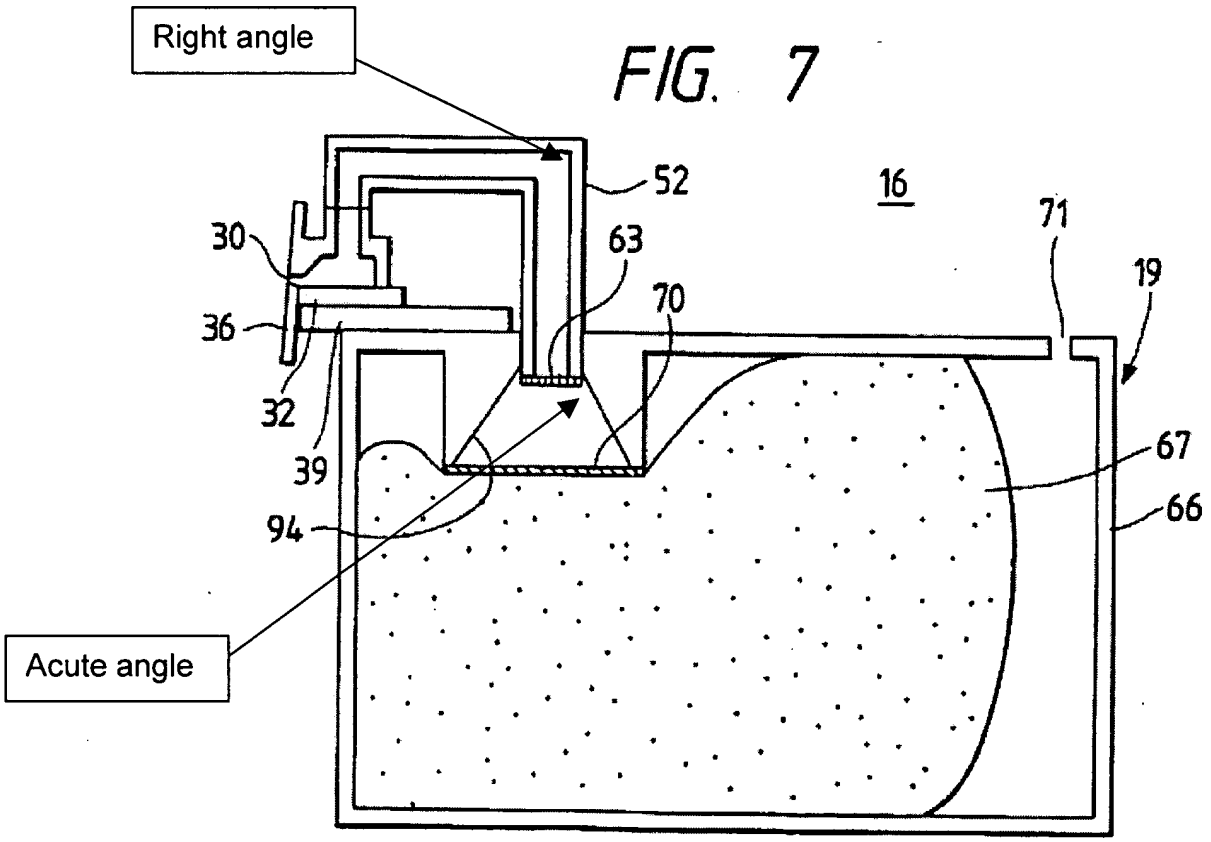
Appellant's specification, specifically Figure 11, does not provide a coordinate system for the three-dimensional filter pictured and furthermore uses broad language to claim the individual parts of the filter. The examiner reminds appellant that claims must be given their broadest reasonable interpretation consistent with the specification and a claim must be interpreted in light of the specification without reading limitations into the claim (MPEP 2111). Therefore, the first filter member (70) and the second filter member (63) of the Arashima et al. patent do constitute separate filter material provided on opposite first and second faces of a frame and enclosing an opening of the frame. The frame (94) in this instance provides the support necessary for the location of the first and second filter members and an opening to supply ink to the discharge ports (30). The ink supply tube (52) of the Arashima et al. patent does constitute a fluid fitting including a fluid port offset from a frame of the ink supply mechanism and a fluid passage communicated with the opening of the frame and the fluid port. Also, as shown below from an enlarged portion of Figure 7, Arashima meets the claimed limitations.

Enlarged Portion of Figure 7:



With respect to claims 9 and 10, the appellant argues "Claims 9 and 10 each depend from independent claim 1 and, as such, each include the limitations of independent claim 1." This argument is not persuasive as stated above in the examiner's response to independent claim 1. Second, with respect to claims 9 and 10, the appellant argues, "The Examiner recognizes, however, that the Arashima et al. patent fails to disclose the angle is approximately a right angle and the angle is an acute angle", is not persuasive. The examiner agrees that the Arashima et al. patent fails to explicitly disclose the angle is approximately a right angle and the angle is an acute angle. However, that is precisely the reason why the examiner cited the Lattuca et al. patent. Lattuca et al. clearly teaches a fluid fitting having a surface oriented at a right angle and an acute angle. Furthermore, even without Lattuca et al., one of ordinary skill

in the art would have been able to determine from Figure 7 of the Arashima et al. patent, that Arashima discloses a fluid fitting having a surface oriented at a right angle or an acute angle (i.e. 89.99 degrees), as shown below in Figure 7.



(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Geoffrey Mruk GM

Conferees:

Stephen Meier

David Blum DSa

STEPHEN MEIER
SUPERVISORY PATENT EXAMINER